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**Observation/Reflection #3: A Matter of Style**

Choose one of the prompts below:

* During this visit, you should work with one or more groups of students if you haven't already, and observe your teacher doing the same. For this journal entry, describe your teacher's teaching style. What type of relationships with students does he or she nurture in his or her classes? How do students perceive that power is distributed in the classes? Does this vary within or across the different classes the teacher has? Cite examples from your observations to support your inferences. Remember to reflect on what style of teaching you will gravitate toward and the how you want to be perceived by your students.
* Observe a laboratory activity or base your answer on past visits. How does your CT conduct a typical laboratory activity? How does he or she open the activity and organize student groups? How do students learn what they're expected to do during the period? Reflect on your reading about inquiry and your experience with the NECAP inquiry task. How did the laboratory activity you observe prepare students for the type of activities that might show up on the NECAP in the future? What inquiry elements would you strengthen? What science practices do you want to stress when you're teaching?

The 9th grade accelerated Earth Science class participated in an inquiry activity that gave them an opportunity to analyze information, make observations, and look for patterns in a cluster of stars. Students were grouped in pairs which were randomly matched with but boys were chosen from one set and girls from another so the smaller number of boys in the class would be paired with a girl. Students were given: a set of instructions, a print of the Jewelbox Cluster of stars, a Star-Gauge (strip with color and sizes to compare to stars in the print), a graph sheet, and answer sheet, a washable marker and a ruler. They were asked to find the cluster of stars on the print, put an X on the center and then draw a 4cm circle around the cluster. The students used the star gauge to determine the color and size of the stars within the circle. After making their measurement, the students plotted their findings on a graph of size and color. The teacher walked around to make sure that each partner was involved with a task, such as determining size, color or recording. All of the students were engaged in the process. Students were reminded by the teacher to answer the questions on the worksheet in their notebooks. The questions were:

1. Do all the stars appear to be the same color?
2. Can you tell where the edge of the cluster lies?
3. Do the Jewelbox stars on you graph appear to be randomly scattered or do they fall in any kind of pattern?
4. Do the field stars appear to fall randomly on your diagram or do they appear to fall in any kind of pattern?
5. Compare your answer to Q3 and Q4. Why do you think the similarities or differences between the two star patterns exist?
6. Using the sample graphs on the worksheet, estimate the age of the Jewelbox cluster
7. Where would our star, the Sun, be plotted on your diagram.

The activity required most of the class time. My CT told me that when they return for the next class, she will have them delineate the area on their graphs that most of the stars will fall in. They will find that there is a pattern to their data which she will show them is the pattern in a Hertzsprung-Russell diagram. The pattern is a broad band on a graph of size to color/heat of stars in a cluster in which the majority of stars fall.

This activity involved many of the NECAP assessment of Inquiry requirements. The students: made predictions, used evidence to collect data, followed procedures, used accepted methods to organize and represent data, collected sufficient data, summarized and analyzed data to support their interpretations and communicate their findings. This activity did not merely teach them about patterns in star clusters it allowed them to gather the data they needed to find the pattern on their own which will make that lesson much more memorable and meaningful to the students. They also practiced important skills such as measuring, graphing, recording and working with partners. When they learn that the pattern that they observed is real and was discovered by Hertzprung, they will have a better understanding of what scientists do because they were able to experience the same types of steps that were done by the scientists that recognized the pattern originally. I think that many of the NGSS practices were also involved in this activity. I thought this was a very interesting and useful inquiry activity and would like to do activities similar to this one in my own classroom.